An Agile Retrospective

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Overview

The goal of this session is to address how to adapt agile practices for game development while not destroying the values and principles behind them.

- Retrospective format
  - What works (clear wins)?
  - What doesn’t work so well?
  - What do we need to start doing?
- Info gathered from developers
- A broad range of topics, not in depth
- Talent and leadership still #1
Things That Work
Iteration

An iteration is a fixed length amount of time used to complete a variable amount of scope

- The “heartbeat” of an agile process
  - Discover/prove what is fun
  - Test & refine your plans
  - Improve communication with your customer
- It’s important to define what “done” means
Time-boxing Art

A time-box is a fixed length of time given to produce results. The results are variable.

- "Perfect is the enemy of good enough"
- Quality is a variable that the customer should judge based on cost
- Especially good in production, but need to fine tune timebox for quality & improvements
- Best for “macro level” assets
- Scarcity drives innovation
Agile and Leadership

- Creating ownership
- Unity of vision on large teams
- Leading by doing

The role of leadership in an agile culture shift to a mentoring/support role from a command and control role
Retrospectives

Retrospectives are regular reviews of the team, by the team, to discuss how they are working.
XP stands for eXtreme Programming is an agile methodology which includes Test Driven Development (TDD) and Pair Programming practices.
Pair Programming

Pair programming is a continuous peer review. It supports:
- Mentoring
- Knowledge sharing
- Consistent standards
- Resource sharing

[Diagram showing problem complexity and programmer experience, highlighting paired and unpaired scenarios]
Agile Planning

Priority oriented planning and development

Sprint
Release
Future Releases

High
Priority
Cost
Value
Risk
Knowledge
Low
Coaching & Classes

• Onsite Coaching
• Scrum Master Classes
  • Focused on Game Development
• Product Owner Classes
• Estimating and Planning Classes
What Hasn't Worked So Well
Adoption issues

- Scrum is hard
  - Changing practices from the start can backfire
  - ...but change is necessary

- Silver bullet mentality
- XP is controversial
- Leadership support & sabotage
Scrum for Artists and Designers

- The shortcomings of Scrum
  - Real flow is more complex
  - Specialists vs. generalists
- There are no XP-like practices for artists and designers
- Lean and Kanban may provide some answers
Large teams

- A large project group can lack a sense of ownership divided across many teams
- How does project group break into teams?
Solution #1: Functional Teams

- Mechanics
- AI
- Animation
- Graphics
- Audio
Solution #2: Feature Teams

- Fighting
- Shooting
- Driving
- Squad AI
- Online
Solution #3: Core Team & Dedicated Function & Feature Teams

- Production (Function)
- Core (~30)
- PS3 (Function)
- Engine & Tools (Function)
- Driving (Feature)
- Cinematics (Function)
- Online (Feature)
Fears of Agile Planning

• “Agile planning means no planning”
• “Creates endless iteration”
• “Can’t be used for production”
• Agile vs. Waterfall, a polarization of views
Ideal Waterfall
Actual Waterfall
Ideal Agile
Agile Game Development
What we need to start doing (new/more/better)
Agile Transition Strategies

Bottom Up or Top Down?

- **Beachhead team**
  - Low cost & risk
  - Takes more time
  - How to spread?
  - Creates influence
  - Easier to adopt and try all practices
  - Can be a stealth skunk works project

- **Entire company**
  - Requires more coaching
  - Takes less time
  - More cost & risk
  - Usually requires command and control
Art Production & Agility

- Production and content creation aren’t a perfect fit with Scrum
  - Complex flow of work
  - Cross-discipline teams
  - Better understanding of requirements
Lean Production

• Focuses on examining an entire value stream and waste
• By looking at the whole stream and standards that are continually improved by everyone, it encourages a culture of continual improvement
• Uses tools to work with complex flow
  • Value Stream Maps
  • Kanban

**Graph:**
- **Title:** HOW LONG DOES IT TAKE TO BUILD A CAR?
- **Subtitle:** Productivity differences between US car companies
- **Legend:**
  - Chrysler
  - GM
  - Nissan
  - Toyota
  - Honda
  - Ford
- **Source:** Harbour Consulting

[Historical data showing productivity over years 1998 to 2005 for different car companies, indicating productivity improvements over time.]
Value Stream Mapping & Kanban

A 56% improvement in level production
Conclusion

- Principles over practices
- Metrics are key
- Talent & Leadership are #1
  - (People over process)
- More info
  - www.AgileGameDevelopment.com
  - www.MountainGoatSoftware.com
    - CSM-VGD in May

Questions?